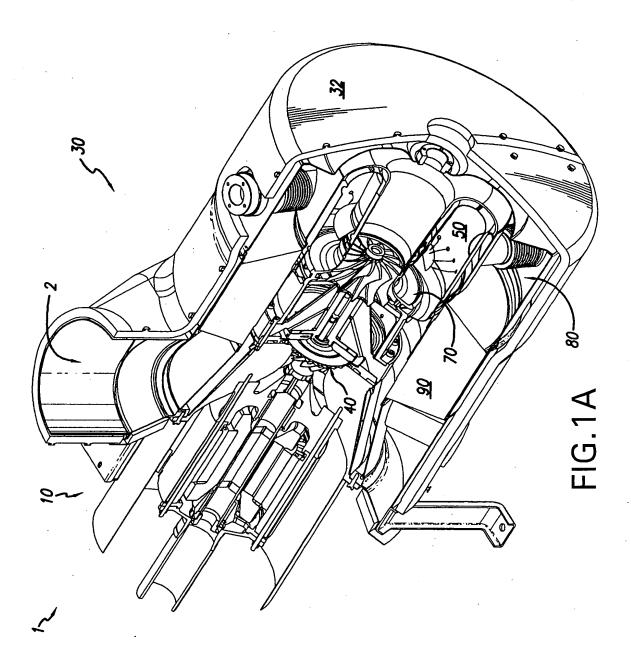
MAR 1 5 2004 BY

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Dkt No. 2066.0110001; Group Unit: 2834
Inventor: Simon R. Wall Tel: 202-371-2600
Title: Detection of Islanded Behavior and Anti-Islanding
Protection of a Generator in Grid-Connected Mode





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Inventor: Simon R. Wall Tel: 202-371-2600

Title: Detection of Islanded Behavior and Anti-Islanding

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24B 10D

FIG.1B

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Dkt No. 2066.0110001; Group Unit: 2834
Inventor: Simon R. Wall Tel: 202-371-2600
Title: Detection of Islanded Behavior and Anti-Islanding
Protection of a Generator in Grid-Connected Mode



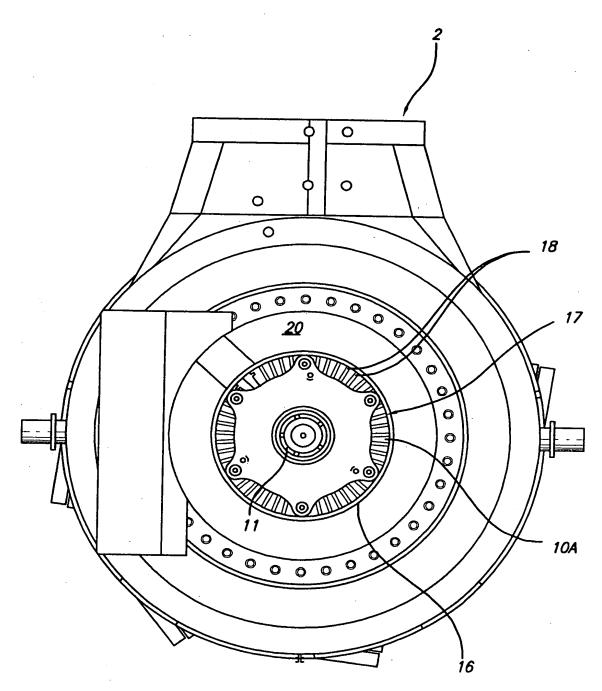


FIG.1C



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Dkt No. 2066.0110001; Group Unit: 2834
Inventor: Simon R. Wall Tel: 202-371-2600
Title: Detection of Islanded Behavior and Anti-Islanding
Protection of a Generator in Grid-Connected Mode

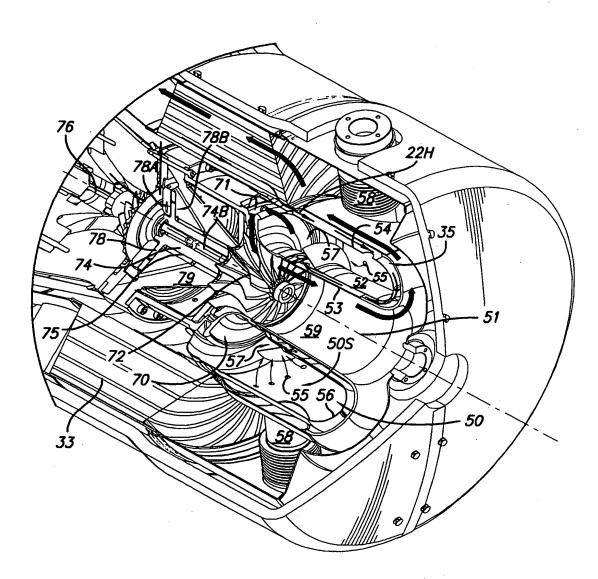


FIG.1D

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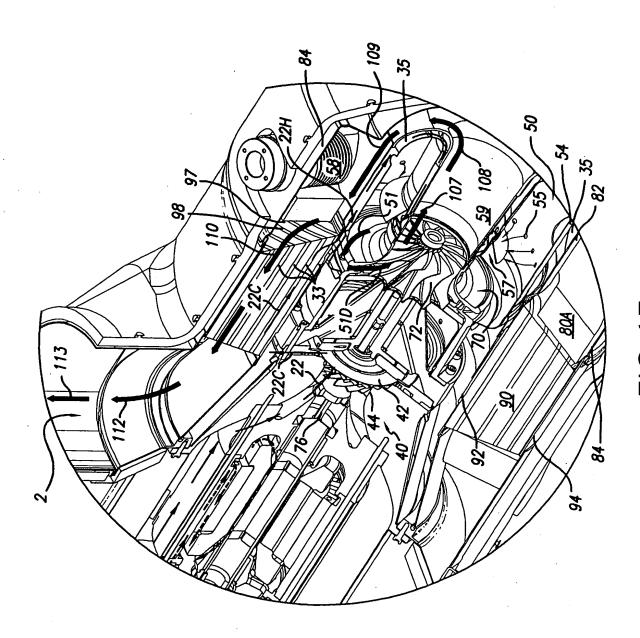
Dkt No. 2066.0110001; Group Unit: 2834

Inventor: Simon R. Wall Tel: 202-371-2600

Title: Detection of Islanded Behavior and Anti-Islanding

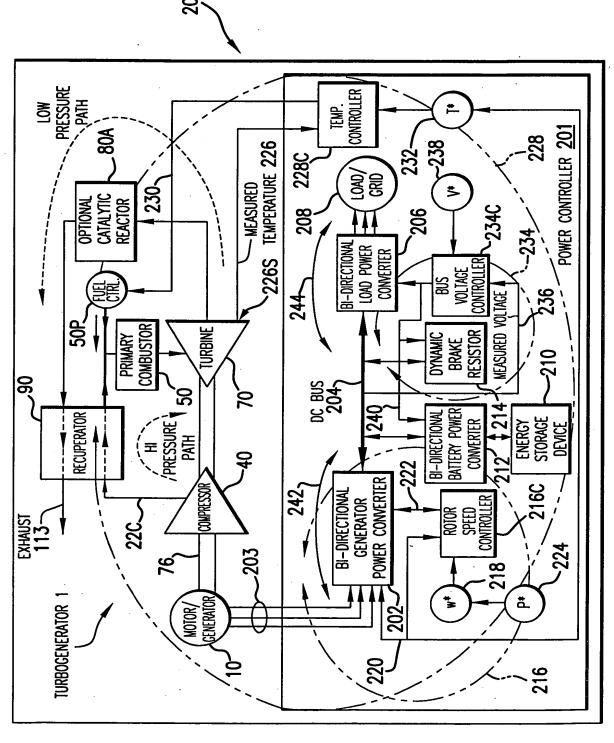
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Protection of a Generator in Grid-Connected Mode





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Dkt No. 2066.0110001; Group Unit: 2834
Inventor: Simon R. Wall Tel: 202-371-2600
Title: Detection of Islanded Behavior and Anti-Islanding
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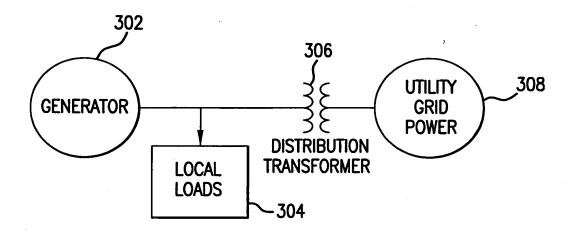


FIG.3



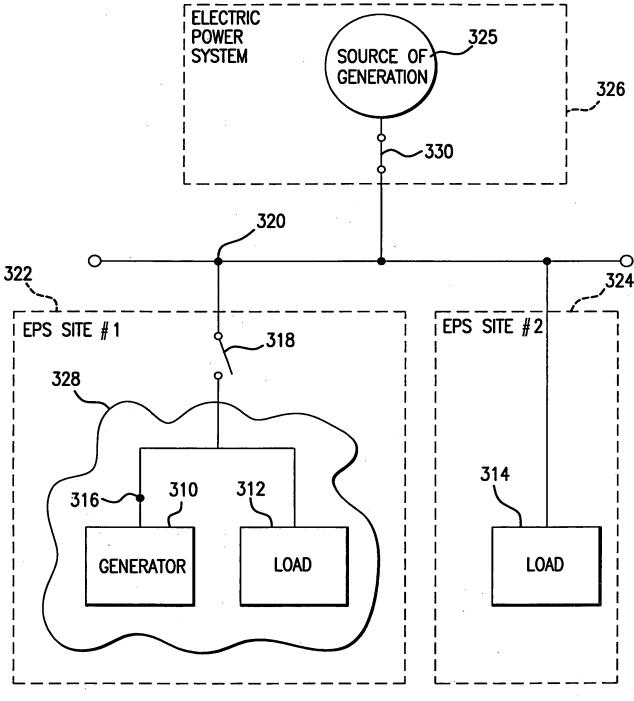


FIG.4



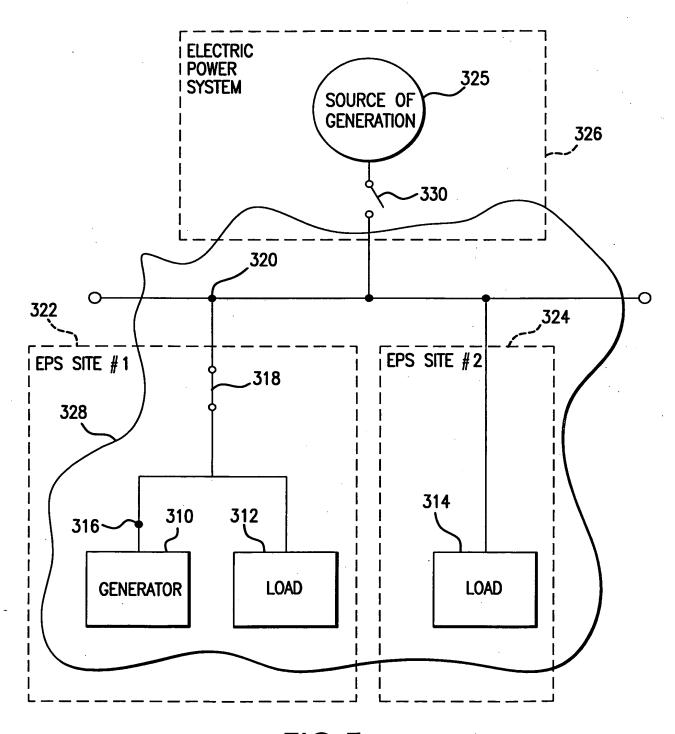
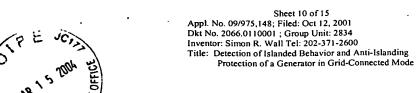
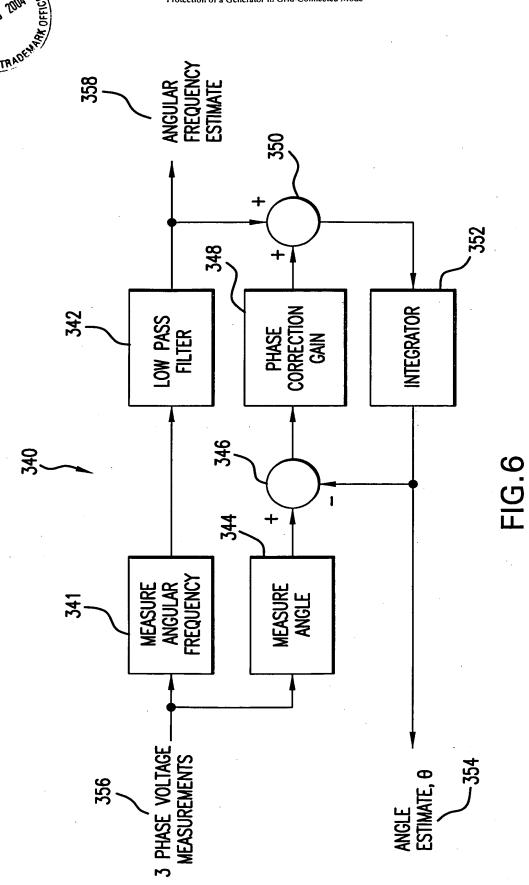


FIG.5





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REFERENCE AXIS STATIONARY POC_ISLAND VPOC_ISLAND Φ

ISLANDED DR GENERATOR CURRENT MAGNITUDE AT THE POC (A) VPOC_ISLAND POC_ISLAND

ISLANDED VOLTAGE MAGNITUDE AT THE POC (V)

ZISLAND

∳ISLAND PDRG

MPEDANCE MAGNITUDE OF THE ISLAND LOOKING INTO THE POC (Ω) IMPEDANCE PHASE—ANGLE OF THE ISLAND LOOKING INTO THE POC (RADIANS)

DEMANDED REAL POWER OUTPUT OF THE DR GENERATOR (W)

DEMANDED REACTIVE POWER OUTPUT OF THE DR GENERATOR (LAGGING IS POSITIVE) (VAr)

ANGLE OUTPUT FROM THE PLL (RADIANS)

DEMANDED CURRENT PHASE ANGLE, 0=tan-1(QDRG/PDRG) (RADIANS)

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Protection of a Generator in Grid-Connected Mode

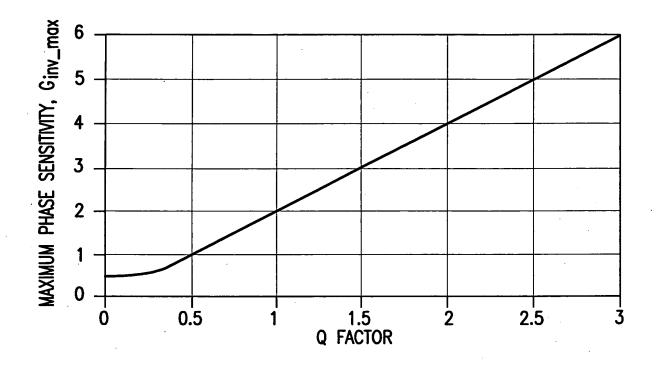


FIG.8

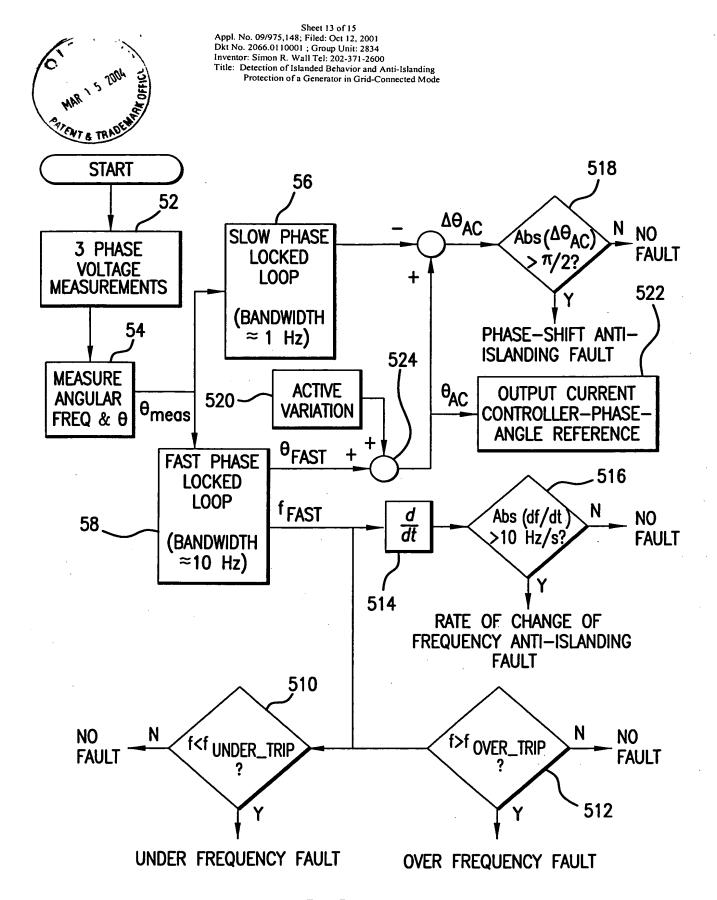


FIG.9A

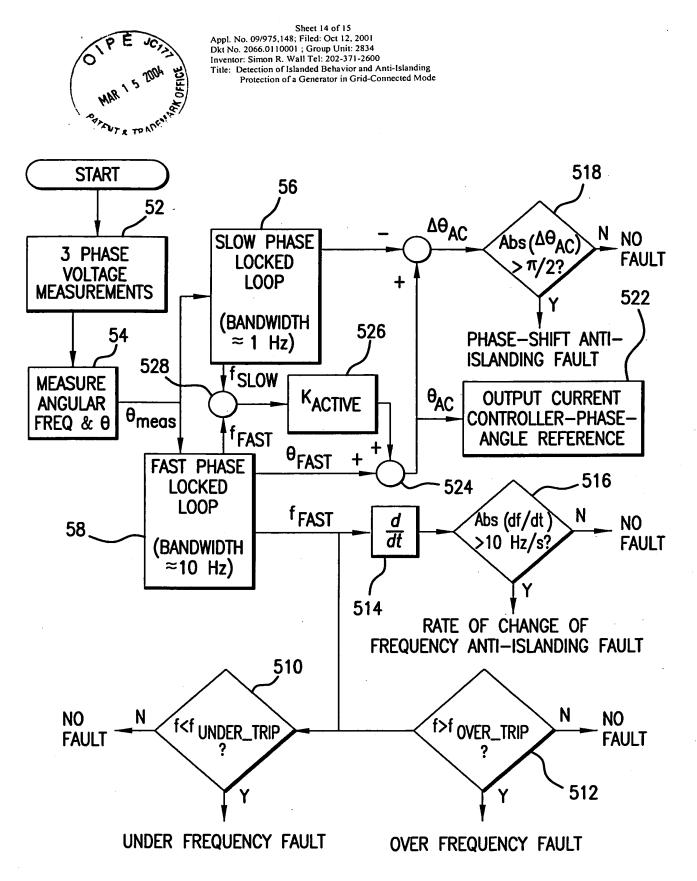


FIG.9B

Sheet 15 of 15 Appl. No. 09/975,148; Filed: Oct 12, 2001
Dkt No. 2066.0110001; Group Unit: 2834
Inventor: Simon R. Wall Tel: 202-371-2600
Title: Detection of Islanded Behavior and Anti-Islanding
Protection of a Generator in Grid-Connected Mode ELECTRIC POWER SYSTEM 401 SOURCE OF **GENERATION** 400 402 416 EPS SITE #1 410 **TRANSFORMER** 50k VA, 5% 404 408 412 414 **GENERATOR** LOAD LOAD 406 50k VA 50k VA 50k VA

FIG.10